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EXECUTIVE PROGRESS REPORT  
ON SMALL ICBM SITING AND BASING OPTIONS

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**Air Force  
Environmental Planning Division  
(HQ USAF/CEVP)**

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*Jack Bush, GPO-14*  
Mr. Jack Bush  
Special Projects and Plans  
703-697-2928  
DSN 227-2928

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## INTRODUCTION

In January 1983, President Reagan formed a bipartisan Commission on Strategic Forces to review the strategic modernization program of the United States. Known as the Scowcroft Commission, the panel of distinguished experts conducted an extensive review that offered conclusions and recommendations intended to develop a broad national consensus on several difficult issues. These included recommendations on basing our forces, achieving equitable arms control agreements, and improving strategic stability. The Commission's recommendations were accepted by the President and Congress and have since become the foundation for the current Intercontinental Ballistic Missile (ICBM) Modernization Program.

The President's strategic effort consists of several components: vigorous pursuit of arms control, improvement of the nation's command, control and communications network, establishment of the Strategic Defense Initiative, deployment of 100 B-1B bombers, backfit of the Trident II submarine launched ballistic missile (SLBM) system into our naval force, continued research into advanced ICBM basing technologies, deployment of Peacekeeper missiles in existing Minuteman silos around F.E. Warren AFB, and development of a new, small ICBM capable of mobile deployment. This report addresses the latter program, and in particular, the siting

and basing of the new, small missile.

OVERVIEW

The Small ICBM program was given its initial direction and funding in calendar year 1983. Congress directed that a single-warhead ICBM weighing no more than 30,000 pounds be developed for initial deployment in 1992. To date, the program has received approximately \$1.4 billion for research. In the latter part of 1986, it will be decided whether additional funds are to be devoted to full scale development of the system.

Coincident with the decision on full scale development, selections must be made on how and where the missiles are to be deployed. Lead times associated with site activation, facility construction, design, and land acquisition make it necessary to decide on deployment areas at the same time full scale development begins. Accordingly, initial area siting and environmental analyses of facilities must be complete by the fall of 1986.

At this time, three basing concepts appear feasible for initial deployment. The first mode involves the use of hardened, missile-carrying mobile vehicles dispersed over government controlled-access land. Survivability of the system is a function of both launcher hardness and mobility. The second mode involves a variant of the first wherein the

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vehicles are parked at existing Minuteman facilities ready for dispersal in time of national emergency. The survivability of the system in this mode is a function of system hardness, the dispersed nature of the existing facilities, and the resulting capability to rapidly disperse over a large area, thus providing launcher location uncertainty. The third mode consists of missiles deployed in silos possessing a hardness more than 40 times that of existing Minuteman silos. The survivability of the system in this mode is a function of silo hardness and positioning. The silos are arranged to complicate enemy attack effectiveness while simplifying maintenance, security, and command and control activities.

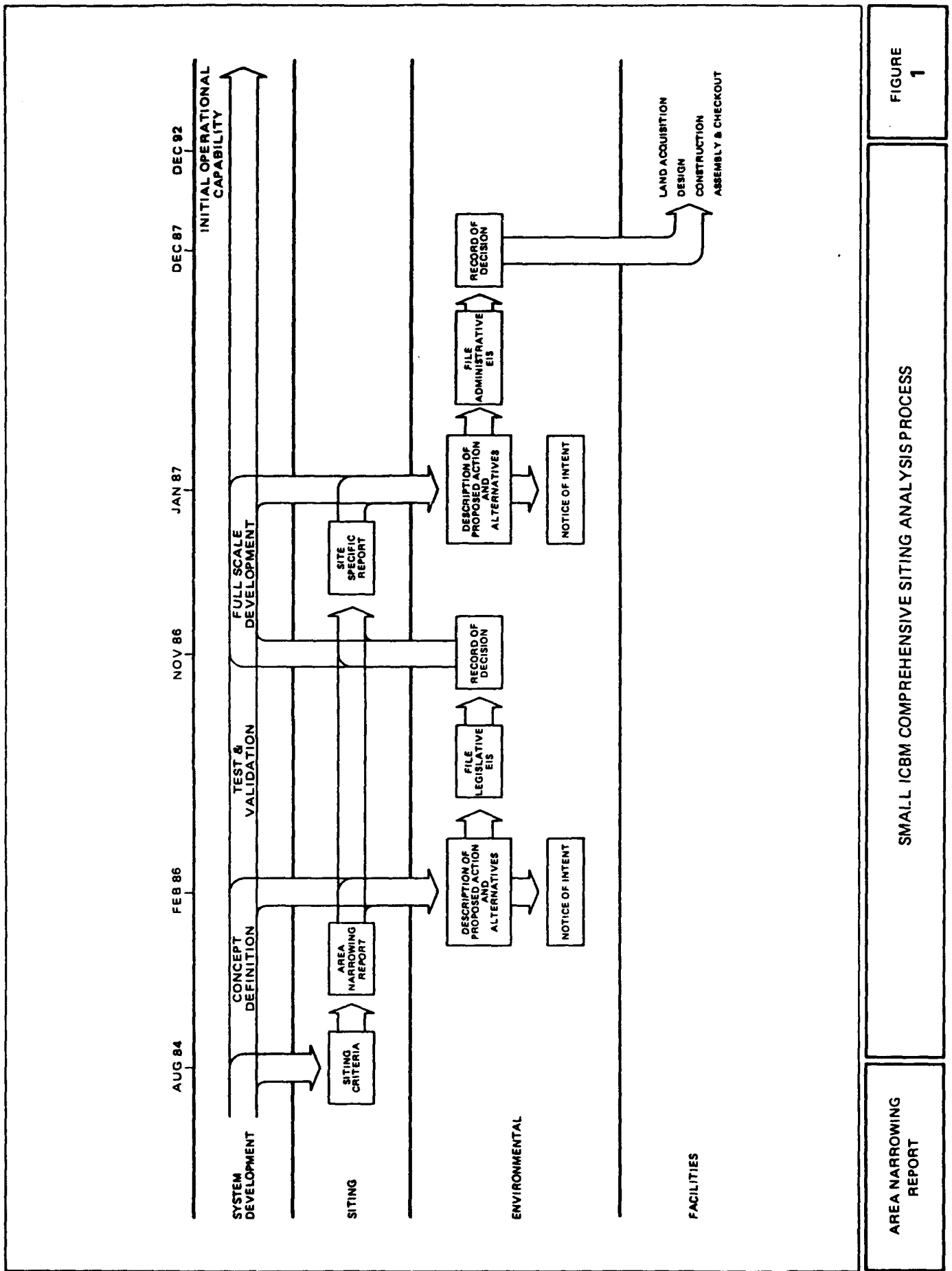
No determination has been made of the number of missiles or deployment locations that might be required. Force structure decisions will be dependent upon military needs, results of continuing arms control negotiations, and progress on other strategic programs.

The decision on the basing mode(s) and associated deployment areas for the Small ICBM will be made by the Department of Defense (DOD), with the concurrence of the Department of Energy (DOE) if any of its facilities are to be used. Deployment decisions will be subject to the approval of the President and eventual concurrence of Congress.

SITING AND AREA NARROWING

Potential deployment locations are being evaluated continuously and screened for suitability as additional information becomes available. Those regions found not suitable are being eliminated. Data collection and evaluation continues on those locations that remain following each level of screening. The overall siting analysis process is depicted in Figure 1.

Initial screening of potential deployment locations began with a list of DOD and DOE installations situated throughout the 50 states. Using maps, Landsat photographs, and other library data, approximately 4200 installations were reviewed with the use of exclusionary criteria to determine whether each met minimum technical and operational criteria. From that initial effort, all but 51 areas in 15 states were eliminated. Next, field visits were conducted to collect and validate information on topography, geology, population densities, growth projections, water resources, transportation capacities, public utilities, and government support facilities. Through the application of various evaluative criteria, comparative analyses were then performed to determine the suitability of each location. Twenty-seven of the 51 installations were eliminated by this second level of screening.





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As a result of the siting research conducted during 1985, a multi-volume "Area Narrowing Report" has been prepared that presents extensive information on the Small ICBM siting process and the results of evaluations completed to date. The methodology associated with the siting analysis process is delineated in the report for each basing mode. Specifically, the document provides an overview of the system description; discusses technical, operational, legal and policy siting criteria; describes the rationale and process for elimination of potential locations; and identifies candidate locations that remain under consideration for deployment of the system. The report is divided into three separate volumes, one devoted to each basing mode:

Volume I: Hard Mobile Launcher in Random Movement

Volume II: Hard Mobile Launcher at Minuteman  
Facilities

Volume III: Hard Silo in Patterned Array

Copies of this document may be obtained by writing to:

Air Force Regional Civil Engineer-Ballistic Missile  
Support  
AFRCE-BMS/DEV      Attention: Area Narrowing Report  
Norton Air Force Base, California 92409

SPECIFIC RESULTS REGARDING EACH BASING MODE

Hard Mobile Launcher in Random Movement

Application of the criteria to candidate areas resulted in the elimination of all but six complexes located in seven states. Within each of the six complexes are one or more installations. The installations remaining for further study are depicted on the map in Figure 2 and listed in Table 1.

Hard Mobile Launcher at Minuteman Facilities

Application of the criteria resulted in all six Minuteman bases remaining for further study. These are shown on Figure 3 and listed in Table 2.

Hard Silo in Patterned Array

Application of the criteria to candidate main operating bases and surrounding deployment areas resulted in the elimination of all but six complexes. Each complex contains at least one installation. The installations remaining are depicted in Figure 4 and listed in Table 3.

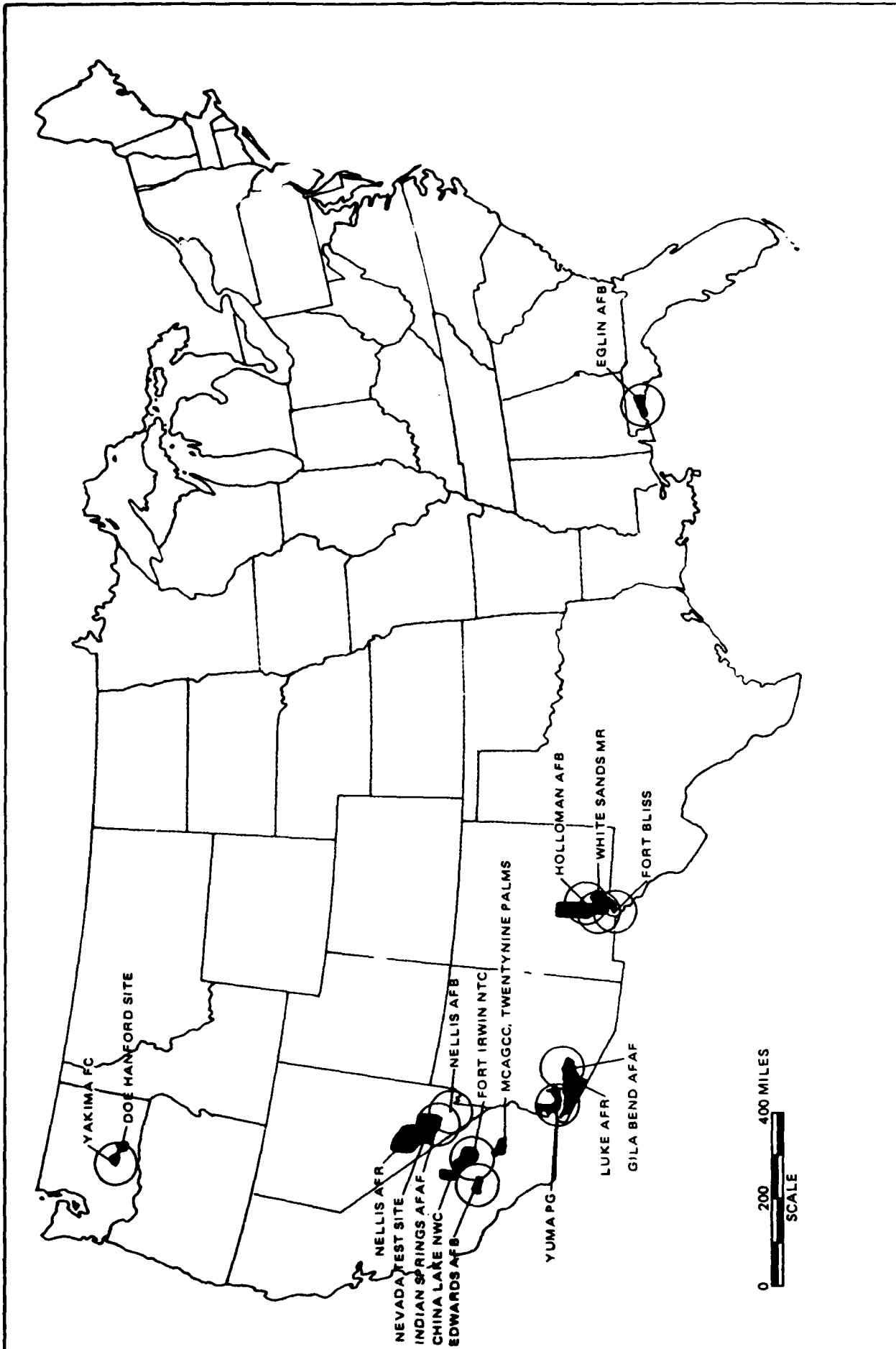


FIGURE  
2

CANDIDATE DEPLOYMENT INSTALLATIONS AND CANDIDATE MAIN OPERATING BASES FOLLOWING  
AREA NARROWING FOR THE HARD MOBILE LAUNCHER IN RANDOM MOVEMENT BASING MODE

AREA NARROWING  
REPORT

TABLE 1: CANDIDATE DEPLOYMENT INSTALLATIONS AND CANDIDATE  
MAIN OPERATING BASES FOLLOWING AREA NARROWING FOR  
HARD MOBILE LAUNCHER IN RANDOM MOVEMENT BASING MODE

<u>CANDIDATE MAIN OPERATING BASES</u>	<u>CANDIDATE DEPLOYMENT INSTALLATIONS</u>
<u>ARIZONA COMPLEX</u>	
Gila Bend Air Force Auxiliary Field or Yuma Proving Ground	Luke Air Force Range and Yuma Proving Ground
<u>FLORIDA COMPLEX</u>	
Eglin Air Force Base	Eglin Air Force Base
<u>NEVADA COMPLEX</u>	
Indian Springs Air Force Auxiliary Field or Nellis Air Force Base	Nellis Air Force Range and Nevada Test Site
<u>NEW MEXICO/TEXAS COMPLEX</u>	
Fort Bliss, Holloman Air Force Base, or White Sands Missile Range Headquarters	Fort Bliss, Holloman Air Force Base, and White Sands Missile Range
<u>SOUTH-CENTRAL CALIFORNIA COMPLEX</u>	
Edwards Air Force Base or Fort Irwin National Training Center	China Lake Naval Weapons Center, Edwards Air Force Base, Fort Irwin National Training Center, Marine Corps Air Ground Combat Center, Twentynine Palms
<u>WASHINGTON COMPLEX</u>	
Yakima Firing Center	Department of Energy Handford Site and Yakima Firing Center

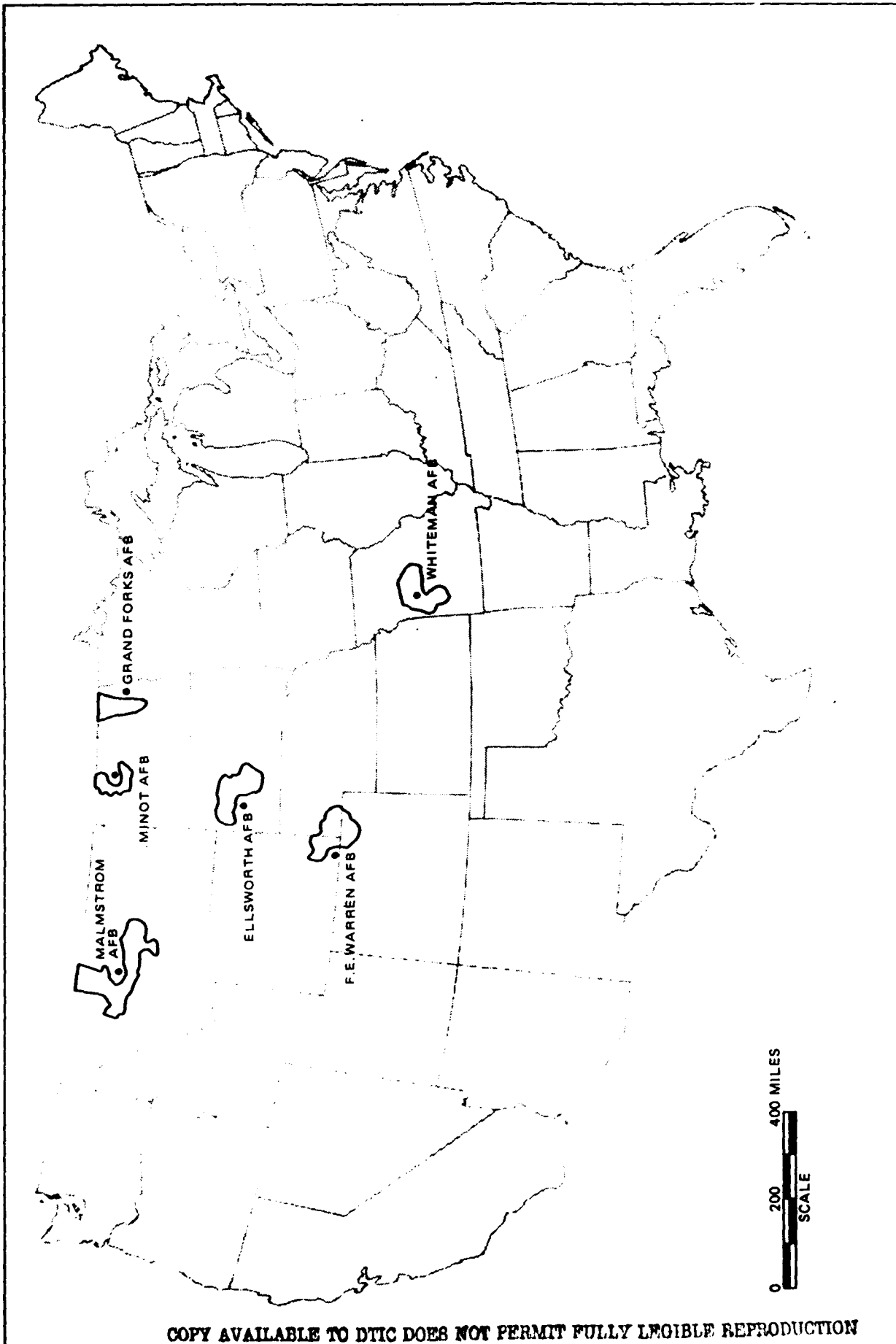


FIGURE  
3

CANDIDATE MAIN OPERATING BASES AND ASSOCIATED CANDIDATE DEPLOYMENT AREAS  
FOLLOWING AREA NARROWING FOR HARD MOBILE LAUNCHER AT  
MINUTEMAN FACILITIES BASING MODE

AREA NARROWING  
REPORT

TABLE 2: CANDIDATE MAIN OPERATING BASES FOLLOWING AREA NARROWING  
FOR HARD MOBILE LAUNCHER AT MINUTEMAN FACILITIES BASING MODE

Ellsworth Air Force Base, South Dakota  
F.E. Warren Air Force Base, Wyoming  
Grand Forks Air Force Base, North Dakota  
Malmstrom Air Force Base, Montana  
Minot Air Force Base, North Dakota  
Whiteman Air Force Base, Missouri

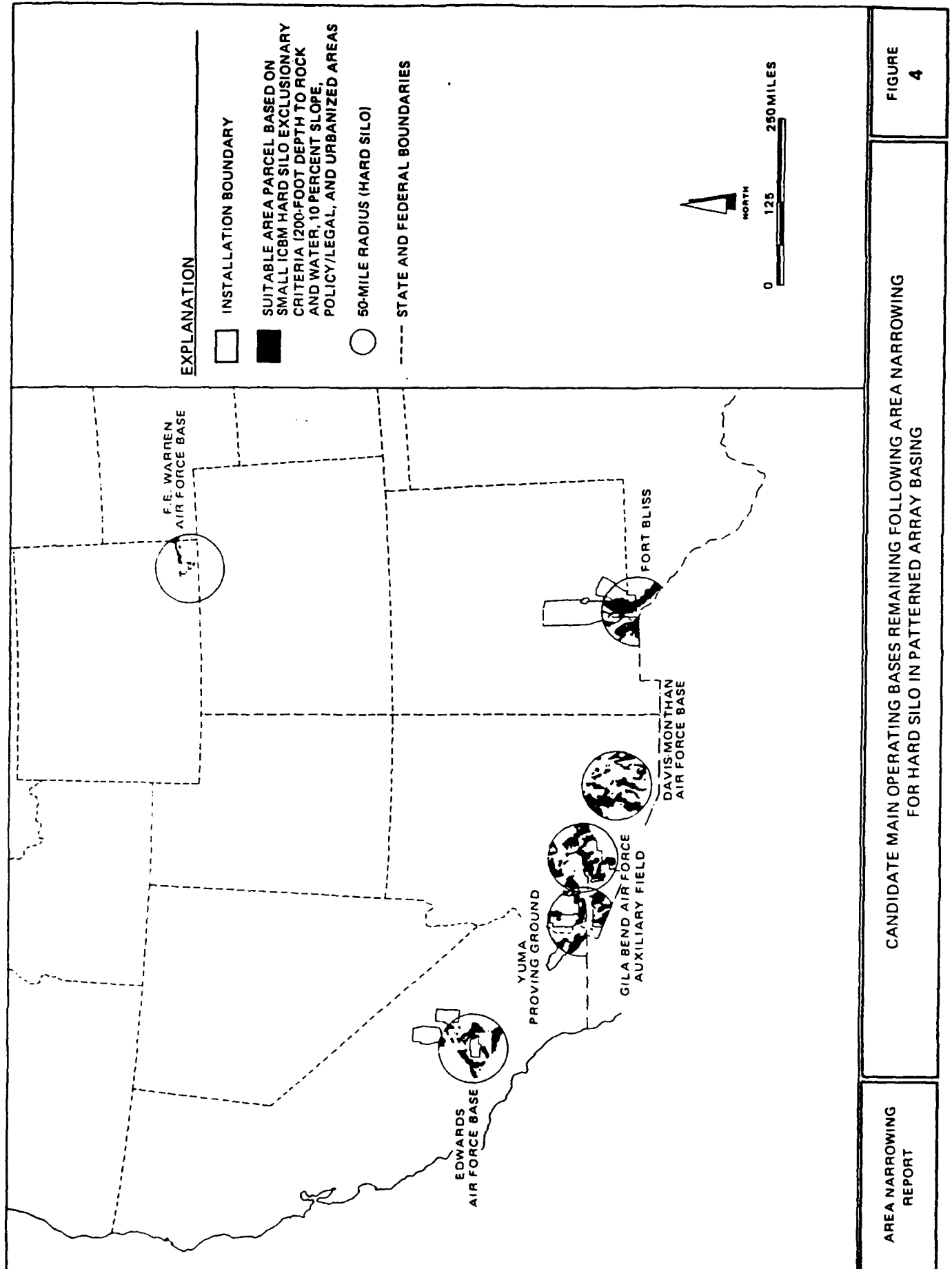


TABLE 3: CANDIDATE MAIN OPERATING BASES FOLLOWING AREA NARROWING  
FOR HARD SILO IN PATTERNED ARRAY BASING MODE

Davis-Monthan Air Force Base, Arizona  
Edwards Air Force Base, California  
F.E. Warren Air Force Base, Wyoming  
Fort Bliss, Texas  
Gila Bend Air Force Auxiliary Field, Arizona  
Yuma Proving Ground, Arizona



FUTURE ACTIVITIES

The 24 installations remaining for further evaluation are listed in Table 4. Mission conflict analysis and environmental studies will be performed regarding each of these installations. These studies will result in an environmental impact statement (EIS) that will be considered by DOD and forwarded to Congress in the fall of 1986. Coordination of technical reports within the Department of Defense and Department of Energy is to be completed before recommendations on area selections can be prepared. Comments will be sought regarding impact upon ongoing and projected missions and concerning those environmental issues that should be included in the EIS. Upon completion of the first environmental impact statement, the public may submit comments to the Air Force Regional Civil Engineer at Norton AFB, or directly to Congress. For those areas and installations selected in late 1986, site-specific environmental impact statements are to be prepared in order to aid in site selection decisions anticipated in 1988. Construction activities would begin following those decisions. Deployment of the first missiles is scheduled during 1992.

TABLE 4: CANDIDATE INSTALLATIONS

<u>INSTALLATION</u>	<u>STATE</u>	<u>OPERATING SERVICE</u>
China Lake Naval Weapons Center	CA	Navy
Davis-Monthan Air Force Base	AZ	Air Force
Edwards Air Force Base	CA	Air Force
Eglin Air Force Base	FL	Air Force
Ellsworth Air Force Base	SD	Air Force
Fort Bliss	TX	Army
Fort Irwin	CA	Army
F.E. Warren Air Force Base	WY	Air Force
Gila Bend Air Force Auxiliary Field	AZ	Air Force
Grand Forks Air Force Base	ND	Air Force
DOE Hanford Site	WA	Department of Energy
Holloman Air Force Base	NM	Air Force
Indian Springs Air Force Auxiliary Field	NV	Air Force
Luke Air Force Range	AZ	Air Force
Malmstrom Air Force Base	MT	Air Force
Marine Corps Air Ground Combat Center, Twentynine Palms	CA	Marine Corps
Minot Air Force Base	ND	Air Force
Nevada Test Site	NV	Department of Energy
Nellis Air Force Base	NV	Air Force
Nellis Air Force Range	NV	Air Force
Whiteman Air Force Base	MO	Air Force
White Sands Missile Range	NM	Army
Yakima Firing Center	WA	Army
Yuma Proving Ground	AZ	Army